

CONTENTS

TRANSFORMATION OF LEUKOCYTES BY <i>THEILERIA PARVA</i> AND <i>T. ANNULATA</i> , Dirk Dobbelaere and Volker Heussler	1
ADDICTION MODULES AND PROGRAMMED CELL DEATH AND ANTIDEATH IN BACTERIAL CULTURES, Hanna Engelberg-Kulka and Gad Glaser	43
WOLBACHIA PIPIENTIS: MICROBIAL MANIPULATOR OF ARTHROPOD REPRODUCTION, R. Stouthamer, J. A. J. Breeuwer, and G. D. D. Hurst	71
AEROTAXIS AND OTHER ENERGY-SENSING BEHAVIOR IN BACTERIA, Barry L. Taylor, Igor B. Zhulin, and Mark S. Johnson	103
IN VIVO GENETIC ANALYSIS OF BACTERIAL VIRULENCE, Su L. Chiang, John J. Mekalanos, and David W. Holden	129
THE INDUCTION OF APOPTOSIS BY BACTERIAL PATHOGENS, Yvette Weinrauch and Arturo Zychlinski	155
POLES APART: BIODIVERSITY AND BIOGEOGRAPHY OF SEA ICE BACTERIA, James T. Staley and John J. Gosink	189
DNA UPTAKE IN BACTERIA, David Dubnau	217
INTEGRATING DNA: TRANSPOSASES AND RETROVIRAL INTEGRASES, L. Haren, B. Ton-Hoang, and M. Chandler	245
TRANSMISSIBLE SPONGIFORM ENCEPHALOPATHIES IN HUMANS, Ermias D. Belay	283
BACTERIAL BIOCATALYSTS: MOLECULAR BIOLOGY, THREE-DIMENSIONAL STRUCTURES, AND BIOTECHNOLOGICAL APPLICATIONS OF LIPASES, K-E. Jaeger, B. W. Dijkstra, and M. T. Reetz	315
CONTRIBUTIONS OF GENOME SEQUENCING TO UNDERSTANDING THE BIOLOGY OF <i>HELICOBACTER PYLORI</i> , Zhongming Ge and Diane E. Taylor	353
CIRCADIAN RHYTHMS IN CYANOBACTERIA: ADAPTIVENESS AND MECHANISM, Carl Hirschie Johnson and Susan S. Golden	389
CONSTRUCTING POLYKETIDES: FROM COLLIE TO COMBINATORIAL BIOSYNTHESIS, Ronald Bentley and J. W. Bennett	411
GIANT VIRUSES INFECTING ALGAE, James L. Van Etten and Russel H. Meints	447
MECHANISMS FOR REDOX CONTROL OF GENE EXPRESSION, Carl E. Bauer, Silvie Elsen, and Terry H. Bird	495

CONTENTS

TRANSFORMATION OF LEUKOCYTES BY <i>THEILERIA PARVA</i> AND <i>T. ANNULATA</i> , Dirk Dobbelaere and Volker Heussler	1
ADDICTION MODULES AND PROGRAMMED CELL DEATH AND ANTIDEATH IN BACTERIAL CULTURES, Hanna Engelberg-Kulka and Gad Glaser	43
WOLBACHIA PIPIENTIS: MICROBIAL MANIPULATOR OF ARTHROPOD REPRODUCTION, R. Stouthamer, J. A. J. Breeuwer, and G. D. D. Hurst	71
AEROTAXIS AND OTHER ENERGY-SENSING BEHAVIOR IN BACTERIA, Barry L. Taylor, Igor B. Zhulin, and Mark S. Johnson	103
IN VIVO GENETIC ANALYSIS OF BACTERIAL VIRULENCE, Su L. Chiang, John J. Mekalanos, and David W. Holden	129
THE INDUCTION OF APOPTOSIS BY BACTERIAL PATHOGENS, Yvette Weinrauch and Arturo Zychlinski	155
POLES APART: BIODIVERSITY AND BIOGEOGRAPHY OF SEA ICE BACTERIA, James T. Staley and John J. Gosink	189
DNA UPTAKE IN BACTERIA, David Dubnau	217
INTEGRATING DNA: TRANSPOSASES AND RETROVIRAL INTEGRASES, L. Haren, B. Ton-Hoang, and M. Chandler	245
TRANSMISSIBLE SPONGIFORM ENCEPHALOPATHIES IN HUMANS, Ermias D. Belay	283
BACTERIAL BIOCATALYSTS: MOLECULAR BIOLOGY, THREE-DIMENSIONAL STRUCTURES, AND BIOTECHNOLOGICAL APPLICATIONS OF LIPASES, K-E. Jaeger, B. W. Dijkstra, and M. T. Reetz	315
CONTRIBUTIONS OF GENOME SEQUENCING TO UNDERSTANDING THE BIOLOGY OF <i>HELICOBACTER PYLORI</i> , Zhongming Ge and Diane E. Taylor	353
CIRCADIAN RHYTHMS IN CYANOBACTERIA: ADAPTIVENESS AND MECHANISM, Carl Hirschie Johnson and Susan S. Golden	389
CONSTRUCTING POLYKETIDES: FROM COLLIE TO COMBINATORIAL BIOSYNTHESIS, Ronald Bentley and J. W. Bennett	411
GIANT VIRUSES INFECTING ALGAE, James L. Van Etten and Russel H. Meints	447
MECHANISMS FOR REDOX CONTROL OF GENE EXPRESSION, Carl E. Bauer, Silvie Elsen, and Terry H. Bird	495

INTERCELLULAR SIGNALING DURING FRUITING-BODY DEVELOPMENT OF <i>MYXOCOCCUS XANTHUS</i> , <i>Lawrence J. Shimkets</i>	525
CLOSTRIDIAL TOXINS AS THERAPEUTIC AGENTS: BENEFITS OF NATURE'S MOST TOXIC PROTEINS, <i>Eric A. Johnson</i>	551
VIRUSES AND APOPTOSIS, <i>Anne Roulston, Richard C. Marcellus, and Philip E. Branton</i>	577
THE CYTOSKELETON OF TRYPANOSOMATID PARASITES, <i>Keith Gull</i>	629
INDEXES	
Subject Index	657
Cumulative Index of Contributing Authors, Volumes 49-53	695
Cumulative Index of Chapter Titles, Volumes 49-53	699



